APPENDIX L - SECURITY VIEWS

The GCCS Core Database contains data pertaining to many different OPLANS. The table USER_OPLAN_PERMISSION is used within applications to control which oplans a user is permitted to see. It is possible to implement this security feature at the database level rather than at the application level.

The security views were created to allow applications to migrate towards database level security enforcement. For every GCCS Core Database table that contains the OP_PLN_ID column, a corresponding security view exists. Each security view is a one-to-one copy of the base table's structure combined with a check against the USER_OPLAN_PERMISSION table. This construct restricts the user to viewing only those rows which they have the proper permissions to see.

This appendix contains a list of oplan related tables with their associated security views in Subsection L.1 and the security views creation script in Subsection L.2.

L.1   SECURITY VIEWS REPORT

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Table                                Security View
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AF_LOG_SR                            AF_LOG_SR_VW

AF_PRSL_SR                           AF_PRSL_SR_VW

AUDITOR_ERROR_MERGE                  AUDITOR_ERROR_MERGE_VW

AUDITOR_RECEIVE_QUEUE                AUDITOR_RECEIVE_QUEUE_VW

AUDITOR_SEND_QUEUE                   AUDITOR_SEND_QUEUE_VW

CARRIER_ALLOCATION                   CARRIER_ALLOCATION_VW

CARRIER_MANIFEST                     CARRIER_MANIFEST_VW

FORCE_MODULE                         FORCE_MODULE_VW

FORCE_MODULE_DESCRIPTION             FORCE_MODULE_DESCRIPTION_VW

FORCE_MODULE_RQMT                    FORCE_MODULE_RQMT_VW

OPLAN                                OPLAN_VW

OPLAN_ACCESS                         OPLAN_ACCESS_VW

OPLAN_AGENCY_USE                     OPLAN_AGENCY_USE_VW

OPLAN_ASSUMPTION                     OPLAN_ASSUMPTION_VW

OPLAN_CARRIER                        OPLAN_CARRIER_VW

OPLAN_CONCEPT                        OPLAN_CONCEPT_VW

OPLAN_CONDITION                      OPLAN_CONDITION_VW

OPLAN_CONSTRAINT                     OPLAN_CONSTRAINT_VW

OPLAN_FORCE_RQMT                     OPLAN_FORCE_RQMT_VW

OPLAN_FORCE_RQMT_CARGO               OPLAN_FORCE_RQMT_CARGO_VW

OPLAN_FORCE_RQMT_CARGO4              OPLAN_FORCE_RQMT_CARGO4_VW

OPLAN_FORCE_RQMT_LOC                 OPLAN_FORCE_RQMT_LOC_VW

OPLAN_MAJOR_FORCE                    OPLAN_MAJOR_FORCE_VW

OPLAN_MISSION                        OPLAN_MISSION_VW

OPLAN_NARRATIVE                      OPLAN_NARRATIVE_VW

OPLAN_NONUNIT_RQMT_CARGO             OPLAN_NONUNIT_RQMT_CARGO_VW

OPLAN_NONUNIT_RQMT_LOC               OPLAN_NONUNIT_RQMT_LOC_VW

OPLAN_NONUNIT_RQMT_PRSL              OPLAN_NONUNIT_RQMT_PRSL_VW

OPLAN_PARENT                         OPLAN_PARENT_VW

OPLAN_RELATED_PERSONNEL              OPLAN_RELATED_PERSONNEL_VW

OPLAN_RESOURCE                       OPLAN_RESOURCE_VW

OPLAN_RESUPPLY_SHORTFALL             OPLAN_RESUPPLY_SHORTFALL_VW
```

```
Table                          Security View
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OPLAN_ROUTING                  OPLAN_ROUTING_VW

OPLAN_SUPPLY_SHORTFALL         OPLAN_SUPPLY_SHORTFALL_VW

PDR_FM_COLLECTION              PDR_FM_COLLECTION_VW

RDA_COLLECTION                 RDA_COLLECTION_VW

RDA_ERROR_LOG                  RDA_ERROR_LOG_VW

SUPPL_RMKS_CARGO               SUPPL_RMKS_CARGO_VW

SUPPL_RMKS_FORCE_RQMT          SUPPL_RMKS_FORCE_RQMT_VW

SUPPL_RMKS_PRSL                SUPPL_RMKS_PRSL_VW

SUPPORTING_CINC                SUPPORTING_CINC_VW

SUPPORTING_OPLAN               SUPPORTING_OPLAN_VW

USER_OPLAN_PERMISSION          USER_OPLAN_PERMISSION_VW
```

L.2   SECURITY VIEWS CREATION SCRIPT - gen_sec_views.sql

```
--
-- Date: 29 July 1996
--
-- Instructions:
-- This script should be run as table_master.  From the directory that contains
-- the script file, the dba should login to sqlplus as
-- table_master and type @gen_sec_views to generate the views.
--
-- The following script generates views containing the OPLAN permission
-- check for each base table owned by table_master containing an OP_PLN_ID
-- (OPLAN_ID). This enhancement to the database is to provide enhanced security
-- through restricting access to the database through views. The views created
-- by this script represent the first step in upgrading security. Applications
-- will in later releases code against the views rather than the base tables.
-- The script creates coresponding grants and synonyms for each view.
--
--
set echo off
set head off
set feedback off
set newpage 0
set linesize 132
spool /h/SMDB/Scripts/SM_bld_tables/sec_views.sql


select 'create or replace
view ' || table_name || '_VW
as select * from ' || table_name || ' a
where exists (select op_pln_id
    from user_oplan_permission b
    where b.user_id = replace (user, ''OPS$'')
    and b.OP_PLN_ID = a.OP_PLN_ID);'
from sys.dba_tables
where owner = 'TABLE_MASTER' and table_name in
        (select distinct table_name
         from sys.dba_tab_columns
         where (owner = 'TABLE_MASTER'
         and column_name = 'OP_PLN_ID'));


select 'GRANT select, update, delete, insert
on TABLE_MASTER.' || table_name || '_VW
 to SMDB_USER;'
from sys.dba_tables
where owner = 'TABLE_MASTER' and table_name in
        (select distinct table_name
         from sys.dba_tab_columns
         where (owner = 'TABLE_MASTER'
         and column_name = 'OP_PLN_ID'));


select 'create public synonym '
|| table_name || '_VW
 for TABLE_MASTER.'
|| table_name || '_VW;'
from sys.dba_tables
where owner = 'TABLE_MASTER' and table_name in
        (select distinct table_name
         from sys.dba_tab_columns
         where (owner = 'TABLE_MASTER'
         and column_name = 'OP_PLN_ID'));



spool off
```

```
set heading on
set feedback on
set echo on

spool /h/SMDB/Scripts/SM_bld_tables/sec_views.lis
@/h/SMDB/Scripts/SM_bld_tables/sec_views.sql
exit;
```